## SUPPORT FOR THE AMENDMENTS

Applicants have amended Claim 1 for clarity and to incorporate the limitation of Claim 6. Accordingly, support for amended Claim 1 can be found in Claims 1 and 6, as previously presented. Applicants have also written Claim 7 in independent form. Support for amended Claim 7 can be found in Claims 1, 6, and 7, as previously presented. Claims 2, 5, 10, 11, 15, 16, 19, 21, 23, and 26 have been amended for clarity. Support for amended Claims 2, 5, 10, 11, 15, 16, 19, 21, 23, and 26 can be found in the same claims, as originally filed.

Applicants have also added new Claim 30. Support for new Claim 30 can be found in Claim 29, as previously presented.

No new matter has been added. Claims 1, 2, 5, 7-26, and 28-30 are active in this application.

## REMARKS/ARGUMENTS

Present Claims 1, 2, 5, 29, and 30 relate to fat and oil composition, comprising:

50 to 85 parts by weight of (A) at least one edible fat or oil having a content of unsaturated fatty acid residues in the total constituent fatty acids thereof of 75 wt% or more,

10 to 35 parts by weight of (B) at least one emulsifier, and

0.1 to 10 parts by weight of (C) at least one humectant,

wherein:

the (A)/(B) ratio by weight is 6.5 or less, and

at least 80% by weight of said at least one emulsifier (B) is a glycerin fatty monoester and a propylene glycol fatty monoester, and said glycerin fatty monoester and said propylene glycol fatty monoester are present in a weight ratio of 1/0.5 to 1/2,

wherein said at least one humectant (C) is a thickening polysaccharide.

Claims 7, 10, 11, 12, 15-17, 19-21, 23, 24, and 28-30 relate to various breads, doughs and cakes which contain such a composition and methods of using such a composition.

The cited references contain no suggestion of the presently claimed compositions, breads, cakes, doughs and methods. Accordingly, these references cannot affect the patentability of the present claims.

The rejection of Claims 1, 2, 4-26, and 29 [*sic*, 1, 2, 5, 7-26, 28, and 29?] under 35 U.S.C. § 103(a) in view of Kawasaki as evidenced by Swern and "Turning the Heat Up on Crisco (and Lard)" in view of Ratka and further in view of Kuhrt; and the rejection of Claims 24-26, 28, and 29 are rejected under 35 U.S.C. § 103(a) in view of Gupta as evidenced by Ratka are respectfully traversed.

At the outset, Applicants again point out that all of the independent claims (i.e., claims 1, 7, 8, 9, 13, 14, 18, and 25) recite that the mixing ratio of glycerin fatty monoester (*i.e.*, part (B-1) of component (B)) to propylene glycol fatty monoester (*i.e.*, part (B-2) of component (B)) is 1/0.5 to 1/2 (sometimes referred to herein as "(B-1)/(B-2) = 1/0.5 to 1/2").

In the outstanding Office Action, the examiner has attempted to cure the shortcomings of the previously cited references by reliance on Kuhrt. This reliance is, however, misplaced.

In particular, there is nothing in the cited references, even when supplemented with Kuhrt, which would suggest any advantage to be obtained by use of the presently claimed ratio of component (B-1) to (B-2).

In this regard, it is again noted that the present inventors have determined that when the ratio of component (B-1) to (B-2) of the fat and oil composition of the present invention is adjusted to be from 1/0.5 to 1/2 certain properties of the resulting bakery product are enhanced, and that such enhancement is obtained without detriment to the remaining properties. More specifically, ***when the ratio of component (B-1) to (B-2) of the fat and oil composition used to make bakery products is within the claimed range of "1/0.5 to 1/2,"***

***enhanced "softness," enhanced "moist feel" and enhanced "melting feel in the mouth" is obtained for the bakery products***. On the other hand, ***when the ratio of (B-1) to (B-2) is outside of the claimed range (i.e., just below or just above the claimed range), inferior "softness," inferior "moist feel" and inferior "melting feel in the mouth" is obtained***. In support of these assertions, Applicants again direct the Examiner's attention to the data presented in the Declaration of Asabu previously submitted, which for convenience is repeated below.

| component | | | Additional product 1 | Additional product 7 | Additional product 2 | Product of the invention A | Addional product 3 | Additional product 8 | Addional product 4 | Addional product 5 | Addional product 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | control | control | the invention | the invention | the invention | control | control | control | control |
| (A) | | Purified rape oil (melting point 10°C or less) | 74.5 | 74.5 | 74.5 | 74.5 | 74.5 | 74.5 | 74.5 | 74.5 | 74.5 |
| | | Commercial vegetable shortning(melting point 37°C) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| (B) | the invention (B-1) | Glycerine fatty monoester (Excel T-95, manufactured by Kao Corporation) | 20 | 15 | 13.0 | 10 | 6.8 | 5.5 | 0 | 0 | 0 |
| (B) | the invention (B-2) | Propylene glycol monobehenic acid ester (PGMB, manufactured by Kao Corporation) | 0 | 5 | 7 | 10 | 13.2 | 14.5 | 20 | 10 | 13 |
| (B) | the invention | Polyglycerine condenced ricinoleic ester (Sun Soft 818SK, manufactured by Taiyo Kagaku Co., Ltd.) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| (B) | control to (B-1) | Polyglycerine fatty acid monoester (MS-5S: hexaglycerine monostealate, manufactured by Sakamoto Yakuhin Kogyo Co., Ltd.) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 7 |
| (B) | the invention | Soybean lecithin (Nisshin lecithin Dx, manufactured by Nissin Oillio Group, Ltd.) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| (C) | the invention | Xanthane Gum (Bistop D-3000, manufactured by San-Ei Gen F.F.I., Inc.) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| (B-1)/(B-2) | the invention | ratio of glycerine fatty acid monoester / propylene glycol monobehenic acid ester | - | 1/0.33 | 1/0.54 | 1/1 | 1/1.94 | 1/2.64 | - | - | - |
| (B-1)/(B-2) | control to (B-1) | ratio of polyglycerine fatty monoester / Propylene glycol monobehenic acid ester | - | - | - | - | - | - | - | 1/1 | 1/1.86 |
| (A)/(B) weight ratio | | | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| <Results of evaluation of fat and oil composition> | | | | | | | | | | | |
| | | Degree of penetration | 20 | 21 | 25 | 31 | 40 | 25 | 25 | 45 | 42 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Weat flour (bread flour) | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| | | Wheat flour (weak flour) | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | Yeast | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | Yeast food | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| | | Sugar | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | | Skin milk | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | Common salt | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | Whole egg | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| | | Shortening | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| | | Fat and oil composition | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| | | Compounded amount | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | | Water | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| | | Roll-in fat and oil | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| <Results of evaluation of bread manufacturing> | | | | | | | | | | | |
| | | Softness | ○ | ○ | ◎ | ◎ | ○ | △ | × | △ | × |
| | | Moist feel | △ | ○ | ◎ | ◎ | ◎ | ○ | △ | △ | △ |
| | | Melting feel in the mouth | × | △ | ○ | ○ | ◎ | ○ | × | △ | △ |

As previously explained, product A and additional products 2 and 3 represent the present invention and are within the scope of the present claims. In contrast, additional products 1 and 4-8 are designated as "control" examples and are outside the scope of the present claims.

Additional product 1 ("control") is lacking component (B-2) and thus results in an inferior "moist feel" (i.e., Δ versus ⊙) and an inferior "melting feel in the mouth" (i.e., × versus ⊙ and ○), as compared to inventive additional products 2 and 3, as well as inventive product A.

Additional product 4 ("control") is lacking component (B-1) and thus results in an inferior "softness" (i.e., × versus ⊙ and ○), an inferior "moist feel" (i.e., Δ versus ⊙) and an inferior "melting feel in the mouth" (i.e., × versus ⊙ and ○), as compared to inventive additional products 2 and 3, as well as inventive product A.

Additional product 5 ("control") contains "control to (B-1)" rather than "the invention (B-1)" and thus results in an inferior "softness" (i.e., Δ versus ⊙ and ○), an inferior "moist feel" (i.e., Δ versus ⊙) and an inferior "melting feel in the mouth" (i.e., Δ versus ⊙ and ○), as compared to inventive additional products 2 and 3, as well as inventive product A.

Additional product 6 ("control") contains "control to (B-1)" rather than "the invention (B-1)" and thus results in an inferior "softness" (i.e., × versus ⊙ and ○), an inferior "moist feel" (i.e., Δ versus ⊙) and an inferior "melting feel in the mouth" (i.e., Δ versus ⊙ and ○), as compared to inventive additional products 2 and 3, as well as inventive product A.

Additional product 7 ("control") has a (B-1)/(B-2) ratio of 1/0.33 that is just below the claimed minimum of 1/0.5. This difference in the (B-1)/(B-2) ratio results in an inferior "softness" (i.e., ○ versus ⊙), an inferior "moist feel" (i.e., ○ versus ⊙) and an inferior "melting feel in the mouth" (i.e., Δ versus ○), as compared to inventive additional product 2 which has a (B-1)/(B-2) ratio of 1/0.54 that is just above the claimed minimum of 1/0.5.

Additional product 8 ("control") has a (B-1)/(B-2) ratio of 1/2.64 that is just above the claimed maximum of 1/2. This difference in the (B-1)/(B-2) ratio results in an inferior "softness" (i.e., Δ versus ○), an inferior "moist feel" (i.e., ○ versus ⊙) and an inferior "melting feel in the mouth" (i.e., ○ versus ⊙), as compared to inventive additional product 3 which has a (B-1)/(B-2) ratio of 1/1.94 that is just below the claimed maximum of 1/2.

Accordingly, the fat and oil compositions according to the present claims provide superior breads that have enhanced "softness," "moist feel" and "melting feel in the mouth" due at least in part to the claimed ratio of (B-1)/(B-2) (i.e., "the mixing ratio of glycerin fatty monoester / propylene glycol fatty monoester by weight") being 1/0.5 to 1/2.

In the Office Action, the position is taken that the results presented in the Declaration of Asabu would have been expected in view of the disclosure of Kuhrt. This assertion is, however, incorrect for at least the following reasons.

Specifically, the improvements reported in Kuhrt are not due to the presence of the glycerol monoester and 1,2-propanediol monoester in a particular ratio. Instead, the invention of Kuhrt is that the glycerol monoester must be present "in a normally unstable polymorphic crystalline form." *See* col. 1, line 67, to col. 2, line 3. Kuhrt merely uses the 1,2-propanediol monoester to prepare a solid mixture in which the normally unstable α form of the glycerol monoester is stabilized with respect to conversion to the more stable polymorph. It is the α form of the glycerol monoester which is responsible for the improvements reported in Kuhrt, not the ratio of the glycerol monoester to the 1,2-propanediol monoester.

For these reasons, the cited references, even when supplemented by Kuhrt, cannot make the present claims obvious.

In addition, Applicants note that Claims 1 and 7 (and the claims dependent thereon) recite that the at least one humectant (C) is a thickening polysaccharide. In this regard, the Examiner's attention is directed toward the duly executed Declaration under 37 C.F.R. § 1.132 of Asabu ("Second Declaration of Asabu") filed herewith. As the Examiner will note, the Second Declaration of Asabu presents comparisons of various compositions which contain a thickening polysaccharide as recited by Claims 1 and 7 (Products A and E) against compositions which contain a protein as in Kawasaki (Products 9-12). As shown in the Second Declaration of Asabu, the compositions according to Claims 1 and 7 provide superior results.

There is nothing in any of the cited references which would even remotely suggest the improvements reported in the Second Declaration of Asabu. Accordingly, these results could not have been expected based on the cited references and ensure the patentability of the present claims.

For all of these reasons, the rejections should be withdrawn.

Applicants submit that the present application is now in condition for allowance, and early notification of such action is earnestly solicited.

Respectfully submitted,

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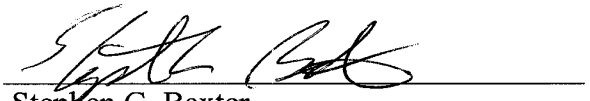

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